

ENVIRONMENTAL ASSESSMENT
Case File No. : AA-082369
AK-040-04-EA-017

Applicant: Alaska Earth Sciences, Inc.
11401 Olive Lane
Anchorage, Alaska 99515

Type of Action: Land Use Application and Permit

Location: Secs. 22, 23, 26 and 27
T. 9 S., R. 44 W.,
Seward Meridian, Alaska

Prepared By: Dorothy Bonds, Realty Specialist

Preparing Office: Bureau of Land Management
Anchorage Field Office
6881 Abbott Loop Rd.
Anchorage, Alaska 99507

Date: March 25, 2004

I. INTRODUCTION:

A. Purpose and Need for the Proposed Action:

Alaska Earth Sciences, Inc. has applied for a permit on behalf of Geocom, a Canadian Exploration Company, to conduct a geophysical survey for copper and gold in the southwest Iliamna area on lands administered by the Bureau of Land Management (BLM). Issuance of a permit will allow Geocom to explore for valuable minerals in the area with the potential for future development.

B. Conformance with Land Use Plan:

No land use plan exists for this area. However, this environmental analysis assesses the impacts of the Proposed Action and provides a basis for a decision on the proposal (43 CFR 1610.8 (b)(1)).

C. Relationship to Statutes, Regulations, Policies, Plans or Other Environmental Analyses:

The lands have been selected by the State of Alaska and a concurrence letter has been received from the State's Department of Natural Resources in accordance with the provisions of ANILCA Section 906(k).

II. PROPOSED ACTION AND ALTERNATIVE

A. Proposed Action:

Alaska Earth Sciences, Inc. proposes to conduct a geophysical survey on State and Federal mining claims owned by Geocom in the southwest Iliamna area. The land is located in Sections 22, 23, 26 and 27, T. 9 S., R. 44 W., Seward Meridian (maps attached).

The survey technique to be employed by Alaska Earth Sciences, Inc. is known as Induced Polarization (IP). It is a non-invasive mineral survey technique. The technique utilizes a 5 kW gasoline generator to produce an electric current that is induced into the ground through two steel electrodes, and voltage measurements are simultaneously made through two other electrodes. Eight to twelve electrodes will be placed in the ground at a time to take the readings. The electrodes will be driven into the ground by hand along the lines. The electrodes can take sensor readings for several miles. This particular survey requires that the IP survey electrodes be placed in the ground at 50 meter spacing along 100 meter spaced lines. The generator is mounted on a pad frame and can be moved by personnel on foot. This project will begin in late March or early April 2004 and will take no more than two to three weeks to complete.

Alaska Earth Sciences, Inc. plans to fly a six-man crew by fixed wing aircraft or helicopter into the area to conduct the survey. The survey itself will be conducted

on foot. An aircraft will be used for supporting camp moves and equipment supplies.

The camp site will consist of weather-port tents, 8x10 in size, one of which will be used for food preparation and office activities, and a portable toilet facility. All waste, including human waste, will be placed in plastic bags and hauled out by helicopter to the nearest landfill in Igiguig, Alaska once a week. Cooking will be done on a propane gas stove. Fuel for the generator will be supplied in five gallon containers. There will be no more than twenty gallons of fuel (four five gallon containers) and two quarts of four-cycle engine oil on site. The fuel will be delivered by helicopter and stored in 4'x4'x4' plastic tote containers.

If Alaska Earth Sciences, Inc. is unable to complete this survey during the March and April timeframe, the survey will be delayed until the 2004 summer exploration drilling program.

B. No Action Alternative:

The No Action Alternative would be to deny this application.

III. AFFECTED ENVIRONMENT

A. Critical Elements:

The following critical elements of the human environment have been analyzed and are either not present or will not be affected by the Proposed Action or the No Action Alternative.

Air Quality
Areas of Critical Environmental Concern
Environmental Justice
Farmlands (Prime or Unique)
Flood plains
Invasive, Non-Native Species
Native American Religious Concerns
Water Quality (Surface/Ground)
Wild and Scenic Rivers
Wilderness

1. Cultural Resources:

No cultural resources are known for this project area. No further consultation is necessary under Section 106 of the National Historic Preservation Act.

2. Wastes, Hazardous/Solid:

There are no known hazardous wastes in this project area.

3. Wetlands/Riparian Zones:

The area of the Proposed Action encompasses numerous lakes, tundra ponds and hydro-logically interconnected water bodies and creeks. This area is heavily populated in spring and summer by nesting shorebirds and waterfowl that nest in wet tundra vegetation.

B. Land Status:

The land is selected by the State of Alaska. The State of Alaska, Department of Natural Resources issued a concurrence in accordance with Section 906(k) of the Alaska National Interest Lands Conservation Act (ANILCA), on July 13, 1998.

C. Vegetation:

Generally the Proposed Action would occur in areas characterized by wet tundra. These are dominated by sedges, low and dwarf shrubs and emergent wetland vegetation. These species complexes are dominated by plants tolerant of saturated soils and sphagnum moss substrates. Drained sites are noticeable as tall shrub belts of alder and willow. Riparian sites and forested sites are patchy, but may exhibit mixed forest species of tall shrubs, aspen, balsam poplar, Kenai birch and black and white spruce in a wide array of composition. Forested sites occur on better drained soils and moraines.

D. Visual Resources:

The exploration area described in the Proposed Action encompasses the flat lowlands of the Lower Nushagak and Mulchatna River drainages. This area is visually expansive in nature due to the lack of visual relief such as mountains or changes in vegetation type. This vastness is without human alteration and gives the viewer an appreciation for space. Both exploration areas are predominantly flat and contain multiple small marsh lakes that may or may not have outlets. Any streams that do emanate from these lakes have very little movement and provide little visual quality. Neither the Mulchatna nor the Nushagak Rivers are visible from the exploration areas.

E. Wildlife:

The area surrounding the Proposed Action supports a variety of animal species. The resident populations include the Mulchatna caribou herd, moose, and predators such as wolves, brown/black bears, lynx and marten. The Mulchatna caribou winters west of Lake Iliamna within the area of the Proposed Action from November through April. There are approximately 12-15,000 animals dispersed between the Nushagak River, Lake Iliamna and the Kvichak River. This herd moves north in late April and May. Moose occur in the areas associated with riparian willow shrubs and mixed forest. Brown and black bears may den in winter throughout the proposed area, and concentrate their activities on rivers and streams during salmon runs. The resident and migrant land birds nest and feed in shrub and forest habitats. The pothole lakes and ponds of the entire region support one of the highest densities of breeding and migrating ducks, geese and shorebirds in the state.

IV. ENVIRONMENTAL CONSEQUENCES

A. Impacts of the Proposed Action:

1. Critical Elements:

a. Cultural Resources:

There are no known cultural resources in the survey area. The geophysical testing itself has no potential to damage previously unknown cultural resources. As the survey will be conducted on foot, the potential for adverse impacts to unknown cultural resources is nominal.

b. Subsistence:

The Proposed Action will not significantly restrict subsistence uses, decrease the abundance of subsistence resources, alter the distribution of subsistence resources, or limit subsistence user access from currently existing conditions.

c. Threatened and Endangered Species:

The impact of the Proposed Action on threatened and endangered plants and animals and their habitats has been evaluated in accordance with the Endangered Species Act of 1973, as amended. Based on currently available information, the Proposed Action would not affect any threatened or endangered species or their habitats. Therefore, no consultation with the U.S. Fish and Wildlife Service is considered necessary pursuant to Section 7 of the Act and none will be undertaken.

d. Wastes, Hazardous/Solid:

Site activities will utilize fuel and other materials which contain oil and/or hazardous substances which, when improperly managed, can cause degradation of all aspects of the affected environment. These materials may include, but are not limited to gasoline, diesel fuel, heating oil, propane, batteries, oil/grease, pesticides (insect repellent), etc. Site occupants will generate wastewater, to include human waste. If improperly managed, wastewater has the potential to pollute nearby water and create other human health issues. Non-hazardous solid waste (trash) will be generated. If improperly managed, solid waste has the potential to attract disease vectors, such as flies and rodents. It also has potential to attract scavenging animals, such as bears, foxes, coyotes, wolves, which can present a human safety issue.

e. Wetlands/Riparian Zones:

Numerous streams or wetland crossings and travel on tundra vegetation with low or no snow cover will have a detrimental effect on riparian vegetation, potential fish spawning habitat and increase erosion of the riparian zone. As the survey itself will be conducted on foot, the potential for adverse impacts to wetlands/riparian zones is nominal.

2. Vegetation:

The primary impact of the Proposed Action would be disturbance of vegetation in the area by human foot traffic.

3. Wildlife:

The work crew may encounter black and brown bears while camping in the area. Bears will be emerging from den sites in April or may be disturbed in their dens. Newly emerged bears may seek camp sites for food. Bear encounters may result in the killing of bears for defense of life and property.

The Mulchatna Caribou herd winters in the area of the Proposed Action, and will be moving to calving areas in April. Intensive helicopter and traffic along survey grids will cause caribou to avoid the area where crews are working.

Migrating ducks, geese and shorebirds will be moving through the region in April and nesting in late April and May. Birds may be disturbed and excluded from the area because of the aircraft and human presence. Birds may abandon nest sites if disturbed during nesting or incubation.

- B. Impacts of the No Action Alternative:
Under the No Action Alternative, there would be no impacts to existing resources.
- C. Cumulative Impacts:
There are no direct, indirect or cumulative impacts for the Proposed Action or the No Action Alternative.
- D. Mitigation Measures:
1. Subsistence:
To accommodate the breeding and nesting activities of migratory birds and to allow for brood fledging and subsistence harvest activities in the spring, activities should be restricted between the dates of April 15 and July 31 in wetlands and lake areas.
 2. Waste, Hazardous and Solid:
Waste must be burned or incinerated as specified by State Law.
Noncombustible waste should be carried off site to an approved solid waste disposal site.

Fuel will need to be stored in a containment dike that will hold 110% of the fuel being stored on the ground.
 3. Wildlife:
Helicopter operations should avoid areas where concentrations of caribou are known to be. To avoid disturbance and nest abandonment of migrating and nesting ducks, geese and shorebirds, exploration activities should be avoided from April 15 through July 31.

Campsites must have bear containers to store food and garbage to reduce the potential for encounters with bears. Food and garbage should be secured in bear proof containers to reduce the potential for encounters with bears.
- V. **CONSULTATION AND COORDINATION:**
- A. Individuals and Agencies Consulted
The State of Alaska Department of Natural Resources has no objection to this project being conducted.
- B. List of Preparers:
Dorothy Bonds, Realty Specialist - Lead Preparer
Jeff Denton, Wildlife Biologist

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Dave Kelley, Natural Resources Specialist
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